IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Adam D. Dirstine   Examiner: Thu V. Huynh

Serial No.: 10/710,835   Group Art Unit: 2178

Filed: August 5, 2004   Docket: 977.066US1

For: METHOD FOR COMPRESSING XML DOCUMENTS INTO VALID XML
DOCUMENTS

APPEAL BRIEF UNDER 37 CFR § 41.37

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir/Madam:

The Appeal Brief is presented in support of the Notice of Appeal to the Board of
Patent Appeals and Interferences, filed on December 19, 2007, from the Final Rejection
of claims 16-26 and 31-38 of the above-identified application, as set forth in the Final
Office Action mailed on September 19, 2007.

The Commissioner of Patents and Trademarks is hereby authorized to charge
Deposit Account No. 19-0743 in the amount of $510.00 which represents the requisite
fee set forth in 37 C.F.R. § 41.2(b)(2). The Appellant respectfully requests consideration
and reversal of the Examiner's rejections of pending claims.

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1. REAL PARTY IN INTEREST

The real party in interest of the above-captioned patent application is the assignee, Digi International, Inc.

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2. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to Appellant that will have a bearing on the Board's decision in the present appeal.

3. STATUS OF THE CLAIMS

The present patent application was filed on August 5, 2004 with claims 1-35. In a Restriction Requirement dated January 5, 2007, the claims were restricted into three independent inventions by the Examiner. Appellant elected to prosecute claims 16-26 and 31-35 without traverse.

In the first non-final Office Action dated April 17, 2007, claims 16-26 and 31-35 were rejected. In a response filed June 28, 2007, claims 16, 18, and 31 were amended and claims 36-38 were added.

In a Final Office Action dated September 19, 2007, claims 16-26 and 31-38 were rejected. In a response filed November 16, 2007, no claims were amended, cancelled or added. An Advisory Action dated December 11, 2007, indicated that the request for reconsideration in the response to the Final Office Action did not place the application in condition for allowance. Claims 16-26 and 31-38 are under appeal.

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4. STATUS OF AMENDMENTS

No amendments have been made subsequent to the Final Office Action which was dated September 19, 2007.

5. SUMMARY OF CLAIMED SUBJECT MATTER

Nothing contained in this summary is intended to change the specific language of the claims described, nor is the language of this summary to be construed so as to limit the scope of the claims in any way. Each claim involved in the present appeal is supported by the specification and/or drawings.

Appellant's invention comprises in various example embodiments a variety of methods, devices, and systems for managing extensible markup language (XML) files or documents. To manage the size of large XML documents, the documents are compressed. As noted in the present patent application, in contrast to typical compression methods however, documents compressed under the methods of the present application remain valid XML documents. A valid XML document is a document that is well formed and has an associated document-type declaration. This allows the compressed valid XML document to be recognized and accessed by applications that process XML documents.

Independent claim 16 recites a network device comprising at least one processor (*see* FIG. 3 and pg. 8 ¶27), a network interface configured to communicate with the at least one processor and a network (*see* FIG. 3 and pg. 8 ¶27), and an XML document processing module, including a compression module configured to compress XML documents and to convert compressed XML documents into text so as to form compressed valid XML documents (*see* FIG. 3 and pg. 8 ¶28).

Independent claim 31 recites a system for communicating XML documents comprising a communication network (*see* FIG. 5 and pg. 9 ¶31), and at least first and second network devices to communicate over the network (*see* FIG. 5, pg. 9 ¶31), wherein each network device includes at least one processor (*see* FIGS. 4 and 5 and pg. 9 ¶31), a network interface to communicate with the at least one processor and the network (*see* FIGS. 4 and 5 and pg. 9 ¶31), and an XML document processing module (*see* FIGS. 4 and 5 and pg. 9 ¶31), wherein the XML document processing module includes a compression module configured to compress XML documents and to convert compressed XML documents into text so as to form compressed valid XML documents (*see* FIGS. 4

and 5 and pg. 9 ¶31), and a decompression module configured to decompress compressed valid XML documents (*see* FIGS. 4 and 5 and pg. 9 ¶31).

Dependent claim 17 recites wherein the XML document processing module of the network device includes a deflate compression algorithm (*see* pg. 8 ¶28).

Dependent claim 18 recites wherein the compression module of the network device includes a binary to ASCII text encoding algorithm (*see* pg. 8 ¶28).

Dependent claim 19 recites wherein the binary to ASCII text encoding algorithm of the compression module includes a base-64 encoding algorithm (*see* pg. 8 ¶28).

Dependent claim 20 recites wherein the XML document processing module of the network device includes a decompression module to decompress compressed valid XML documents (*see* FIG. 4, pg. 9 ¶30).

Dependent claim 21 recites wherein the network device is an embedded device server operable to manage a remote device using XML documents (*see* pg. 8 ¶29).

Dependent claim 22 recites wherein the network interface of the network device includes a serial port (*see* pg. 8 ¶29).

Dependent claim 23 recites wherein the network interface of the network device includes a web interface (*see* pg. 8 ¶29).

Dependent claims 24 and 35 recite wherein a network is a wireless network (*see* pg. 8 ¶29 and pg. 9 ¶32).

Dependent claim 25 recites wherein the network device is included in a cell phone (*see* pg. 8 ¶29).

Dependent claim 26 recites wherein the network is a wireless local area network (WLAN) and the network device is included in a WLAN computer card (*see* pg. 8 ¶29).

Dependent claim 32 recites wherein the first network device is an embedded device server, the first network device operable to receive a device configuration file as a compressed valid XML document and decompress the document (*see* pg. 8 ¶29 and pg. 9 ¶32).

Dependent claim 33 recites wherein the first network device is operable to transfer a status message as a compressed valid XML document to the second network device (*see* pg. 9 ¶32).

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Dependent claim 34 recites wherein the network is a serial communication network (*see* pg. 9 ¶32).

Dependent claims 36 and 37 recite wherein the compression module of a network device is configured to compress a first XML document into a binary stream (*see* pg. 8 ¶28 and pg. 6 ¶25), convert the binary stream into a compressed valid XML document (*see* pg. 6¶25), and associate at least one XML tag with the compressed valid XML document, wherein the XML tag identifies the document as a compressed XML document (*see* pg. 6¶25).

Dependent claim 38 recites wherein a decompression module of a network device is configured to: reconvert a received compressed valid XML document into a binary stream (*see* pg. 9 ¶30), and decompress the binary stream to obtain the first XML document (*see* pg. 9 ¶30).

This summary does not provide an exhaustive or exclusive view of the present subject matter, and Appellant refers to the appended claims and their legal equivalents for a complete statement of the inventive subject matter.

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6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

I.   Claims 16, 21, and 23-25 were rejected under 35 U.S.C. § 102(b) for anticipation by Cseri et al. (U.S. Patent Publication No. 2003/0046317, hereinafter "Cseri").

II.   Claim 17 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Cseri in view of Girardot et al. (U.S. Patent No. 7,007,105, hereinafter "Girardot").

III.   Claims 18 and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Cseri in view of Girardot and further in view of Tycksen, Jr. et al. (U.S. Patent No. 6,189,097, hereinafter "Tycksen").

IV.   Claims 20, 31-33, and 35 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Cseri in view of Sullivan (U.S. Patent No. 7,007,105).

V.   Claims 22 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Cseri in view of Ma et al. (U.S. Patent No. 2005/0063575, hereinafter "Ma").

VI.   Claim 34 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Cseri in view of Sullivan and further in view of Ma.

VII.   Claim 26 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Cseri in view of Hsu et al. (U.S. Patent No. 2004/0205158, hereinafter "Hsu").

7. ARGUMENT

Rejections under 35 U.S.C. § 102(b).

1) Applicable Law

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. M.P.E.P § 2131. To anticipate a claim, a reference must disclose every element of the challenged claim and enable one skilled in the art to make the anticipating subject matter. *PPG Industries, Inc. V. Guardian Industries Corp.*, 75 F.3d 1558, 37 USPQ2d 1618 (Fed. Cir. 1996). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e. identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

A claim in dependent form shall be construed to incorporate by reference all of the limitations of the claim to which it refers. 35 U.S.C. § 112 ¶4. Thus, if a reference does not anticipate a base claim, the reference does not anticipate a claim that depends on the base claim.

2) Discussion of the rejection of claims 16, 21, and 23-25 under 35 U.S.C. § 102(b) as anticipated by Cseri

Claims 16, 21, and 23-25 were rejected under 35 U.S.C. § 102(b) for anticipation by Cseri. This rejection is respectfully traversed. The Final Office Action dated September 19, 2007 has not made a proper *prima facie* showing of anticipation at least because Cseri fails to teach each and every element of claims 16, 21, and 23-25.

Applicant cannot find in Cseri any disclosure of, among other things,

an XML document processing module, including a compression module configured to compress XML documents and to convert compressed XML documents into text so as to form compressed valid XML documents,

as recited in claim 16 and incorporated into claims 21 and 23-25.

It is asserted in the Final Office Action that Cseri teaches compressing XML documents by tokenizing the XML document to produce an XML binary formatted document and converting the XML binary formatted document to an XML document for displaying to a user computer. See Final Office Action, pg. 3.

However, Cseri states that "XML module 210b may be utilized as a means for converting the XML document from a text document to the binary format of the present invention," and also that the tokenizer 210b … tokenizes the document 240 producing XML binary formatted document 250 at 440. See Cseri, ¶0063 and ¶0066. Thus, Cseri uses a binary format, and an XML parser would not be able to interpret the binary formatted document of Cseri until it has been turned back into the original XML document. See Cseri ¶0063. Also, the binary formatted document of Cseri is not a compressed valid XML document. Therefore, Cseri does not teach "a compression module configured to compress XML documents and to convert compressed XML documents into text so as to form compressed valid XML documents" as recited in claim 16.

Further, Cseri states that "binary formatting minimizes parsing time and the generation of overhead incident to the formatting and parsing of data," and that "binary as utilized herein is in contradistinction to ASCII, or text based character representations." See Cseri, Abstract and ¶0155. Thus, Cseri teaches away from converting "compressed XML documents into text so as to form compressed valid XML documents."

It is asserted in the Advisory Action (dated December 11, 2007) that because Cseri states that "XML parser 310b may be utilized as a means for parsing and converting to text the binary formatted XML document," Cseri's teaching perfectly matches the claimed language. See the Advisory Action pg. 2 citing Cseri ¶0063. However, the XML parser of Cseri does not "convert compressed XML documents into text so as to form *compressed* valid XML documents," as recited in claim 16. Cseri describes using an XML parser to read the document and to divide the document into individual elements, attributes and other pieces. See Cseri ¶0057. Thus, the XML parser

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of Cseri does not form compressed valid XML documents, and Cseri does not match the claim language.

In conclusion, Appellant respectfully submits that the *prima facie* case of anticipation is improper because each and every element as set forth in the claims is not found, either expressly or inherently described, in Cseri. Therefore, Applicant respectfully requests withdrawal of the rejection and allowance of claims 16, 21, 23-25.

Rejections under 35 U.S.C. § 103(a).

3) Applicable Law

As discussed in *KSR International Co. v. Teleflex Inc. et al.* (U.S. 2007), the determination of obviousness under 35 U.S.C. § 103 is a legal conclusion based on factual evidence. See *Princeton Biochemicals, Inc. v. Beckman Coulter, Inc.*, 411 F.3d 1332, 1336-37 (Fed.Cir. 2005). The legal conclusion, that a claim is obvious within § 103(a), depends on at least four underlying factual issues set forth in *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17, 86 S.Ct. 684, 15 L.Ed.2d 545 (1966): (1) the scope and content of the prior art; (2) differences between the prior art and the claim at issue; (3) the level of ordinary skill in the pertinent art; and (4) evaluation of any relevant secondary considerations.

The Examiner has the burden under 35 U.S.C. § 103 to establish a *prima facie* case of obviousness. *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *M.P.E.P.* § 2142 (citing *In re Vaeck*, 947 F.2d, 488, 20 USPQ2d 1438 (Fed. Cir. 1991)).

Additionally, there must be a rational underpinning grounded in evidence to support the legal conclusion of obviousness. See *In re Kahn*, 78 USPQ2d 1329 (Fed. Cir. 2006), which states that, "rejections on obviousness grounds cannot be sustained by

mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn* citing *In re Lee*, 61 USPQ2d 1430 (Fed. Cir.2002). Additionally, "mere identification in the prior art of each element is insufficient to defeat the patentability of the combined subject matter as a whole." *In re Kahn.*

A showing of "teaching, suggestion, or motivation" to combine the prior art to meet the claimed subject matter could provide a helpful insight in determining whether the claimed subject matter is obvious under 35 U.S.C. § 103(a). *KSR International Co.*, p. 14, line 24 through p. 15, line 8. The court in KSR made it clear, however, that the "teaching, suggestion, or motivation" (TSM) test is only one tool that can be used to determine obviousness, noting that the Examiner or court simply has to "determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue." *Id.* p. 14, lines 5-17. The court in KSR further noted that "to facilitate review, this analysis [supporting a rejection under 35 U.S.C. § 103(a)] should be made explicit." *Id.*

Specifically, the Office Action must provide specific, objective evidence of record for a finding of a suggestion or motivation to combine reference teachings and must explain the reasoning by which the evidence is deemed to support such a finding. *See KSR Int'l Co.*, p. 14, citing *In re Kahn*, 441 F. 3d 977, 988 (Fed. Cir. 2006); *In re Sang Su Lee*, 277 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002).

Even if adding an element to a prior art was obvious, that does not establish that the claimed invention encompasses obvious subject matter. *KSR Int'l. Co.*, p. 19, ¶ 1. Instead, following factors can still be considered to determine whether a claimed invention at issue is nonobvious under 35 U.S.C. § 103(a): (1) whether the claimed invention yields more than predictable results (id. p. 12, ¶¶ 1-2); (2) whether there is technical difficulties in combining the prior arts, requiring substantial reconstruction or redesign (id. p. 19, ¶ 1); (3) whether the prior art cannot be upgraded to or teaches away from the claimed invention (id. p. 22, ¶ 2); (4) whether the prior arts have secondary factors which may 'dislodge' obviousness – "long felt and unresolved needs", "the failure of others", "commercial success" (id. p. 2, ¶ 3); and (5) whether the prior arts require

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elements of the invention to be read using hindsight to be relevant to the claimed invention (p. 17, ¶ 3).

Therefore, the test for obviousness under §103 must take into consideration the invention as a whole; that is, one must consider the particular problem solved by the combination of elements that define the invention. *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed. Cir.1985). The Examiner must, as one of the inquiries pertinent to any obviousness inquiry under 35 U.S.C. §103, recognize and consider not only the similarities but also the critical differences between the claimed invention and the prior art. *In re Bond*, 910 F.2d 831, 834, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990), *reh'g denied*, 1990 U.S. App. LEXIS 19971 (Fed. Cir.1990). The fact that a reference teaches away from a claimed invention is highly probative that the reference would not have rendered the claimed invention obvious to one of ordinary skill in the art. *Stranco Inc. v. Atlantes Chemical Systems, Inc.*, 15 USPQ2d 1704, 1713 (Tex. 1990). When the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be nonobvious. *Id.* p. 4 citing *United States v. Adams*, 383 U.S. 39, 51-51 (1966). Additionally, critical differences in the prior art <u>must</u> be recognized (when attempting to combine references). *In re Bond*, 910 F.2d 831, 834, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990), *reh'g denied*, 1990 U.S. App. LEXIS 19971 (Fed. Cir.1990).

In order to take into account the inferences which one skilled in the art would reasonably make, the examiner must ascertain what would have been obvious to one of ordinary skill in the art at the time the invention was made. *M.P.E.P.* § 2141.03 (citing *Environmental Designs, Ltd. v. Union Oil Co*, 713 F.2d 693, 218 USPQ 865 (Fed. Cir. 1983), *cert. denied*, 464 U.S. 1043 (1984)).

> The examiner must step backward in time and into the shoes worn by the hypothetical "person of ordinary skill in the art" when the invention was unknown and just before it was made. In view of all factual information, the examiner must then make a determination whether the claimed invention "as a whole" would have been obvious at that time to that person. Knowledge of Appellants' disclosure must be put aside in reaching this determination, yet kept in mind in order to determine the "differences," conduct the search and evaluate the "subject matter as a whole" of the invention. The tendency to resort to "hindsight" based

upon Appellants' disclosure is often difficult to avoid due to the very nature of the examination process. However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.

M.P.E.P. § 2141.03.

4) Discussion of the rejection of claim 17 under 35 U.S.C. § 103(a) as being unpatentable over Cseri in view of Girardot

Claim 17 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Cseri in view of Girardot. This rejection is respectfully traversed. The Final Office Action has not made a proper *prima facie* showing of obviousness at least because Cseri and Girardot do not teach or suggest all of the elements recited in the claims.

Claim 17 depends on base claim 16. The Office Action fails to establish a proper *prima facie* case of obviousness because, for example,

> an XML document processing module, including a compression module configured to compress XML documents and to convert compressed XML documents into text so as to form compressed valid XML documents,

as incorporated into claim 17 from base claim 16, is not shown in any of the cited references.

Additionally, as discussed previously, the four underlying factual issues set forth in *Graham v. John Deere Co. of Kansas City*, upon which a legal conclusion of obviousness depends, include ascertaining the differences between the prior art and the claims at issue. Ascertaining the difference between the prior art and the claims at issue includes considering a reference in its entirety, including disclosures that teach away from the claimed invention. M.P.E.P. §2141.02. As set forth above, Cseri teaches away from converting "compressed XML documents into text so as to form compressed valid XML documents," which is incorporated into claim 17 from base claim 16.

Appellant respectfully submits that a proper *prima facie* case of obviousness has not been established at least because each and every element as set forth in the claims is not taught or suggested in the combination of Cseri and Girardot, and because Cseri teaches

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away from elements incorporated into claim 17. Therefore, Appellant respectfully requests reversal of the 35 U.S.C. § 103(a) rejection and allowance of claim 17.

5) Discussion of the rejection of claims 18 and 19 under 35 U.S.C. § 103(a) as being unpatentable over Cseri in view of Girardot and further in view of Tycksen

Claims 18 and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Cseri and Girardot and further in view of Tycksen. This rejection is respectfully traversed. The Final Office Action has not made a proper *prima facie* showing of obviousness at least because Cseri, Girardot and Tycksen do not teach or suggest some of the elements recited in the claims.

Claims 18 and 19 ultimately depend on base claim 16. As set forth above, Applicant believes base claim 16 to be allowable at least for the reason that Cseri fails to describe or suggest some of the elements of the base claim. Tycksen relates to Digital Certificates, and refers to text-based content being "treated just as a text-based object but indicated as a binary-based object in the formatting provided." See Tycksen, Abstract and col. 9 lines 16-21. Cseri states that the present invention provides a means for taking an arbitrary well-formed XML document in a text format, a means for converting it to a binary format, and a means for converting the document back to the text format without a loss of fidelity. See Cseri ¶0014. As set forth previously, the present application states that a valid XML document is a document that is well formed and has an associated document-type declaration. See present application ¶16. Therefore, because objects are indicated as binary objects in Tycksen, and because Cseri converts valid XML documents into binary format and not into compressed valid documents, Tycksen with Cseri does not describe or suggest, "a compression module to compress XML documents into compressed valid XML documents," as recited in base claim 16.

Additionally, the proposed combination of Cseri, Girardot and Tycksen fails to describe or suggest a "compression module [that] includes a binary to ASCII text encoding algorithm," for example, such as described and claimed by Applicant in claim 18. The Advisory Action states that because Tycksen teaches converting binary data to ASCII text and because Cseri teaches a computer using modules, the combination of

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Cseri and Tycksen would have converted the binary formatted XML to ASCII text for display to the user computer. See Advisory Action pg. 2 citing Tycksen col. 9 lines 7-15 and Cseri ¶0020. However, the converting the binary formatted XML to ASCII text for display of Cseri with Tycksen does not teach or suggest binary to ASCII text encoding by a compression module configured to compress XML documents as recited in claim 18 when read with base claim 16.

Further, the differences in the references would have made it unlikely that one of ordinary skill in the art at the time of the invention would look to combine Tycksen with Cseri. Cseri states that the XML binary format of its present invention minimizes the parsing and generation of overhead in connection with XML documents. See Cseri, ¶0014. Tycksen refers to where binary content is converted to the ASCII code set and that the size of the binary content will increase. Tycksen, col. 9 lines 9-11. Thus, the conversion of binary content in Tycksen would frustrate the minimizing referred to in Cseri.

In conclusion, Appellant respectfully submits that the *prima facie* case of obviousness is improper at least because each and every element recited or incorporated into the claims is not taught or suggested in the combination of Cseri, Girardot and Tycksen, because the differences in the references would have made it unlikely that one of ordinary skill in the art at the time of the invention would look to combine Tycksen with Cseri, and because Cseri teaches away from subject matter incorporated into claims 18 and 19 from base claim 16. Therefore, Appellant respectfully requests reversal of the 35 U.S.C. § 103(a) rejection and allowance of claims 18 and 19.

6) Discussion of the rejection of claims 20, 31-33, and 35 under 35 U.S.C. § 103(a) as being unpatentable over Cseri and further in view of Sullivan

Claims 20, 31-33, and 35 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Cseri and further in view of Sullivan. This rejection is respectfully traversed.

The proposed combination of Cseri and Sullivan fails to establish a proper *prima facie* case of obviousness because, for example,

a compression module configured to compress XML documents and to
convert compressed XML documents into text so as to form compressed
valid XML documents,

as recited in base claims 16 and 31 and incorporated into dependent claims 20 and 32-35
is not shown in any of the cited references. In another example, a decompression module
to decompress compressed valid XML documents as recited in claim 20 and similarly
recited in claim 31 is not shown in any of the cited references.

Sullivan describes transmitting a compressed string of binary information.
Systems receiving this binary representation decompress the binary stream. See Sullivan,
col. 4 lines 60-63. Thus, Sullivan refers to compressing into binary information and does
not teach or suggest converting compressed XML documents into text so as to form
compressed valid XML documents. As set forth above, Cseri uses a binary format and
teaches away from a compression module to convert compressed XML documents into
text. Therefore, the proposed combination of Cseri and Sullivan refers to compressed
binary information and fails to teach or suggest either converting compressed XML
documents into text so as to form compressed valid XML documents, or to
decompressing compressed valid XML documents.

The Advisory Action states that the combination of Cseri and Sullivan would
have decompressing the binary formatted XML to recreate the XML document from the
token XML document as Sullivan disclosed and perfectly matches the claimed language.
See Advisory Action pg. 2, citing Sullivan Fig. 4 and col. 4 lines 64-66. However, as set
forth previously, a binary formatted XML is not a compressed valid XML document as
the term is used in the present patent application. An XML parser would not be able to
interpret the binary formatted document of Sullivan with Cseri until it has been turned
back into the original XML document. Thus, the proposed combination of Sullivan with
Cseri does not teach or suggest "a decompression module to decompress compressed
valid XML documents," recited in claims 20 and claim 31. Therefore Sullivan with Cseri
does not match the claimed language.

Further, one of ordinary skill in the art at the time of the invention would not have
reasonably looked to combine Cseri with Sullivan. Sullivan describes transmitting a

compressed string of binary information. Systems receiving this binary representation decompress the binary stream. See Sullivan, col. 4 lines 60-63. Cseri states that the XML binary format of [its] present invention minimizes the parsing and generation of overhead in connection with XML documents, and that [its] present invention provides a means for taking an arbitrary well-formed XML document in a text format, a means for converting it into a binary format, and a means for converting the document back to the text format without a loss of fidelity. See Cseri, ¶0014. One of ordinary skill in the art at the time of the invention claimed would not have reasonably combined the compression of Sullivan to solve a problem already solved by the binary formatting of Cseri. Further, adding the compression of Sullivan would add overhead to the documents of Cseri.

In conclusion, Appellant respectfully submits that the *prima facie* case of obviousness is improper at least because each and every element recited or incorporated into the claims is not taught or suggested in the combination of Cseri and Sullivan, because one of ordinary skill in the art at the time of the invention would not have reasonably looked to combine Cseri with Sullivan, and because Cseri teaches away from subject matter incorporated into the claims from claim 16.

Therefore, Appellant respectfully requests reversal of the 35 U.S.C. § 103(a) rejection and allowance of claims 20, 31-33, and 35.

7) Discussion of the rejection of claim 22 under 35 U.S.C. § 103(a) as being unpatentable over Cseri and further in view of Ma

Claim 22 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the proposed combination of Cseri and Ma. Applicant respectfully traverses the rejection.

Claim 22 depends on base claim 16. The Office Action fails to establish a proper *prima facie* case of obviousness because, for example,

> a compression module configured to compress XML documents and to convert compressed XML documents into text so as to form compressed valid XML documents,

as incorporated into claim 22 from base claim 16 is not shown in any of the cited references.

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Therefore, Appellant respectfully requests reversal of the 35 U.S.C. § 103(a) rejection and allowance of claim 22.

8) Discussion of the rejection of claim 34 under 35 U.S.C. § 103(a) as being unpatentable over Cseri in view of Sullivan and further in view of Ma

Claim 34 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the Cseri and Sullivan in view of Ma. Applicant respectfully traverses the rejection.

Claim 34 depends on base claim 16. The Office Action fails to establish a proper *prima facie* case of obviousness because, for example,

> a compression module configured to compress XML documents and to convert compressed XML documents into text so as to form compressed valid XML documents,

as incorporated into claim 34 from base claim 16 is not shown in any of the cited references. Also, one of ordinary skill in the art at the time of the invention would not have reasonably looked to combine Cseri with Sullivan.

Therefore, Appellant respectfully requests reversal of the 35 U.S.C. § 103(a) rejection and allowance of claim 34.

9) Discussion of the rejection of claim 26 under 35 U.S.C. § 103(a) as being unpatentable over Cseri and further in view of Hsu

Claim 26 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the proposed combination of Cseri and Hsu. Applicant respectfully traverses the rejection.

Claim 26 depends on base claim 16. The Office Action fails to establish a proper *prima facie* case of obviousness because, for example,

> a compression module configured to compress XML documents and to convert compressed XML documents into text so as to form compressed valid XML documents,

as incorporated into claim 26 from base claim 16 is not shown in any of the cited references.

Therefore, Appellant respectfully requests reversal of the 35 U.S.C. § 103(a) rejection and allowance of claim 26.

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8. SUMMARY

It is respectfully submitted that a *prima facie* case of anticipation under 35 U.S.C. § 102(b) and of obviousness under 35 U.S.C. § 103(a) have not been established. Therefore, it is respectfully requested that the rejection of claims 16-26 and 31-38 be overturned. Appellant further submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Appellant's attorney at (612) 371-2172 to facilitate prosecution of this application.

Respectfully submitted,

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P.O. Box 2938
Minneapolis, MN 55402

Date ___Feb. 1, 2008___ By _____
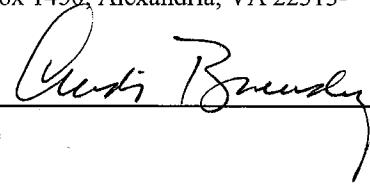Paul J. Urbanski
Reg. No. 58,351

Date of Deposit: __February 1, 2008__
This paper or fee is being filed on the date indicated above using the USPTO's electronic filing system EFS-Web, and is addressed to: The Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

CANDIS BUENDING
_____
Name

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Signature

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CLAIMS APPENDIX

16.   A network device comprising:

at least one processor;

a network interface configured to communicate with the at least one processor and a network; and

an XML document processing module, including a compression module configured to compress XML documents and to convert compressed XML documents into text so as to form compressed valid XML documents.

17.   The network device of claim 16, wherein the XML document processing module includes a deflate compression algorithm.

18.   The network device of claim 17, wherein the compression module includes a binary to ASCII text encoding algorithm.

19.   The network device of claim 18, wherein the binary to ASCII text encoding algorithm includes a base-64 encoding algorithm.

20.   The network device of claim 16, wherein the XML document processing module includes a decompression module to decompress compressed valid XML documents.

21.   The network device of claim 16, wherein the network device is an embedded device server operable to manage a remote device using XML documents.

22.   The network device of claim 16, wherein the network interface includes a serial port.

23.   The network device of claim 16, wherein the network interface includes a web interface.

24.   The network device of claim 16, wherein the network is a wireless network.

25.   The network device of claim 24 wherein the network device is included in a cell phone.

26.   The network device of claim 24 wherein the network is a wireless local area network (WLAN) and the network device is included in a WLAN computer card.

31.   A system for communicating XML documents, the system comprising:

a communication network; and

at least first and second network devices to communicate over the network, wherein each network device includes:

at least one processor;

a network interface to communicate with the at least one processor and the network; and

an XML document processing module, wherein the XML document processing module includes:

a compression module configured to compress XML documents and to convert compressed XML documents into text so as to form compressed valid XML documents; and

a decompression module configured to decompress compressed valid XML documents.

32.   The system of claim 31, wherein the first network device is an embedded device server, the first network device operable to receive a device configuration file as a compressed valid XML document and decompress the document.

33.   The system of claim 31, wherein the first network device is operable to transfer a status message as a compressed valid XML document to the second network device.

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34.   The system of claim 31, wherein the network is a serial communication network.

35.   The system of claim 31, wherein the network is a wireless communication
network.

36.   The network device of claim 16, wherein the compression module is configured to:
        compress a first XML document into a binary stream;
        convert the binary stream into a compressed valid XML document; and
        associate at least one XML tag with the compressed valid XML document,
wherein the XML tag identifies the document as a compressed XML document.

37.   The system of claim 31, wherein the compression module is configured to:
        compress a first XML document into a binary stream;
        convert the binary stream into a compressed valid XML document; and
        associate at least one XML tag with the compressed valid XML document,
wherein the XML tag identifies the document as a compressed XML document.

38.   The system of claim 37, wherein the decompression module is configured to:
        reconvert a received compressed valid XML document into a binary stream; and
        decompress the binary stream to obtain the first XML document.

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EVIDENCE APPENDIX

None.

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RELATED PROCEEDINGS APPENDIX

None.